

NEWARK BAY STUDY AREA PRP DATA EXTRACTION FORM



White Chemical Company

CURRENT MAILING ADDRESS/CONTACT INFO:

White Chemical Company 660 Freylinghuysen Avenue Newark, New Jersey 07114

Current mailing addresses for these additional PRPs are not currently known and will need to be developed:

- Getty Oil
- Southern California Chemical Company
- Tidewater Refinery.

FACILITY ADDRESS:



The former White Chemical Company (WCC) site, approximately 3.4 acres in size, is located at the Foot of East 22nd Street in Bayonne, Hudson County, New Jersey. The site appears on the Hudson County tax map as Block 381 Lot A1.

The site is located within the industrial complex known as Bayonne Industries, (BI), a 225-acre site formerly occupied by the Tidewater Refinery, (a/k/a Getty Oil Co.), and the Southern California Chemical Company, (on occasion, incorrectly cited as "Southern California Oil Co." by NJDEP). WCC operated a chemical manufacturing facility, as a tenant, located in the larger BI industrial complex. BBF000002, from the BI file: CCA000005, CCA000006, CCA000007, CCA000055

Other tenants that operated at the BI site besides WCC, included: Bayonne Terminal Warehouse Co., (a subsidiary of BI), Rona-Pearl Inc., Kenrich Petrochemicals, Theobald Industries, (a/k/a "Tank Storage Co."), and Metropolitan Rendering. BBC000001, from the BI file: CCA000004, CCA000005, CCA000006, CCA0000055, CCA000058

FINANCIAL VIABILITY:

The following, and/or their successors or assigns, who exist today should be considered as candidate PRPs:

- White Chemical Company
- Getty Oil





- Southern California Chemical Company
- Tidewater Refinery.

Information concerning the financial viability of these PRPs associated with this site should be obtained via CERCLA 104 (e) requests for information.

DATES OF OPERATION:

WCC operated at the site as a tenant from 1961 to 1983.

DESCRIPTION OF FACILITY OPERATIONS:

WCC occupied the facility, as a tenant, from 1961 until 1983, when it then moved to Newark, New Jersey. While at the Bayonne facility, WCC manufactured a wide variety of compounds, predominantly chlorinated and brominated organics.

The main product lines manufactured at WCC, during its operations in Bayonne, were polybrominated biphenyls, acid chlorides, alkyl bromides, brominated flame retardants, and specialty chemicals. WCC primarily produced chemicals for the pharmaceutical industry. BBF000002

The following actions are known to have occurred or to be pending: NJDEP notified BI and ExxonMobil that they were jointly and severally responsible for the contamination of the Plattykill Creek/Canal, (PKC). This canal lies on the border of both company properties. BI and ExxonMobil have agreed to, and assumed responsibility, to jointly conduct the remediation of this canal - circa 2000. from the BI file: CCA000036, CCA000041, CCA000042, CCA000043

The site has been undergoing remedial actions under the NJDEP Bureau of Case Management since the late 1980s. BBF000002

WCC declared bankruptcy and filed a case under Chapter 11 (reorganization) of the Federal Bankruptcy Code in 1989. The case was transferred to the Negotiation/Litigation Group within the Bureau of State Case Management, and a formal referral was forwarded to the Deputy Attorney General's Office, requesting that they intervene in the bankruptcy court so that funds could be retrieved during the proceedings to conduct the remedial work that is necessary. A Final Decree was issued on 8/20/92, dismissing the bankruptcy petition and White Chemical Co.'s debts and liabilities were not, therefore, discharged. BBE000011

In 1983, WCC was 1 of 10 New Jersey chemical firms named by the USEPA as having manufactured pesticides, herbicides or insecticides in which dioxin compounds can occur.





According to WCC's own records, they used or produced several Class I, II, and III chemicals identified by the USEPA as related to Dioxin formation, as well as other chemicals regulated by the USEPA:

- o Tribromophenols (Class I); pentabromophenols (Class I); 2,4-dibromophenol (Class I);
- o Tetrabromobisphenol (Class II);
- o Maleic anhydride (Class III); diphenyl oxide (Class III); phthalic anhydride (Class III); pentabromotoluene (Class III);
- o Monochlorobenzene (dioxin precursor chemical regulated by the EPA); and o-dichlorobenzene (dioxin precursor chemical regulated by the EPA).

Related compounds were detected in a site drainage ditch and site soils – see "Discharge Route" section above.

Organic Chemicals related to Dioxin formation, which were detected in site soil included:

- o 2,4-Dichlorophenol (Class I);
- o 2-chlorophenol (Class II);
- o 2,4-dinitrophenol (Class III); 2-nitrophenol (Class III); phenol (Class III);
- o Pentachlorophenol (Class I Pesticide);
- o Monochlorobenzene (dioxin precursor chemical regulated by the EPA) BBF000002

The presence of 4, 4'-DDD, a congener of DDT, was detected in soils at 83,000 ppb in 1988, as reported by USEPA. BBF000002

Sludge/sediment samples taken by Bayonne Industries in 1996, from the Platty Kill Creek/Canal found 4, 4'- DDT up to .15 ppm. Two of its associated congeners were also detected in the canal, 4, 4'-DDD up to 3.2 ppm and 4, 4 – DDE up to 2.1 ppm.

According to a 1983 Administrative Consent Order (ACO) issued to WCC by NJDEP, soil samples were collected and analyzed for the presence of 2,3,7,8-TCDD on June 7, 1983. Analysis of the samples was complicated by the high levels of other contaminants in the soil. Further analysis of the samples was attempted to determine the nature of the chemical compounds responsible for the interferences, but the lab reported that identification was impossible due to the extent of the interference caused by the large concentrations of these compounds in the samples. BBF000002 No re-sampling or analysis was known to be conducted at this time.

In 1988, NJDEP recommended that further sampling episodes should include the analysis for Dioxin, as several organic chemicals associated with Dioxin formation were historically used at the facility and have been detected in site soils and discharge sediments. BBF000002 Dioxin sampling has not been completed in the on-site areas, in the pond or in the canal.





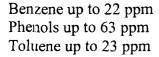
(Note: A data gap and regulatory disconnect exist here, NJDEP Bureau of Case Management has stated that the case is managed by the NJDEP BFO-North office. NJDEP BFO-North has stated that they are not managing the case).

Compounds related to dioxin formation which were detected in site soil included: 2,4-Dichlorophenol (Class II); 2-chlorophenol (Class III); 2-nitrophenol (Class III); phenol (Class III); pentachlorophenol (Class I Pesticide); and monochlorobenzene (dioxin precursor chemical regulated by the EPA) BBF000002

Soil samples in a stained area on site indicated the "qualitative presence of dibromo-, tribromo-, tetrabromo-, pentabromo-, hexabromo-, heptabromo-, octabromo-, nonabromo-, and decabromophenyl compounds" which coincide with compounds utilized/produced by WCC. BBF000002

Sampling events ordered by NJDEP in 1987 revealed extensive contamination of site soils with organics, metals, cyanides, phenols, PHCs, and pesticides. PBB Isomers levels were indicated as high as 2800 ppb and Total Isomers up to 750 ppb, in soil. BBF000002

Other contaminants detected in site soil, from the NJDEP 1987 sampling event, identified these contaminants at the levels indicated: BBF000002



Specific groundwater sampling results were not found in the site file, however, other references indicate that there is documented contamination of groundwater in the area associated with oil and petroleum products, that have been due to the historical uses as a petroleum refinery and storage facilities. BBF000002

Sludge samples that were analyzed showed the following concentrations: from the BI file CCA000049, CCA000077, CCA000022, CCA000021

Total Petroleum Hydrocarbons up to 230,000 ppm
Benzene up to 150 ppm
Chlorobenzene up to 3900 ppm
Ethylbenzene up to 220 ppm
Toluene up to 980 ppm
Total xylenes up to 640 ppm
1, 2-Dichlorobenzene up to 2839 ppm
1, 3-Dichlorobenzene up to 443 ppm

- 1, 4-Dichlorobenzene up to 801 ppm
- 1, 2-Dichloroethane up to 790 ppm

Acenaphthene up to 170 ppm Benzo(a)pyrene up to 46 ppm





Benzio(b)fluoranthene up to 63 ppm
Bis(2-Ethylhexyl) Phthalate up to 110 ppm
Chrysene up to 69 ppm
Fluoranthene up to 90 ppm
Hexachloroethane up to 533 ppm
Napthalene up to 1300 ppm
Phenanthrene up to 620 ppm
Phenols up to 59.6 ppm
Pyrene up to 161 ppm

Alurninum up to 12500 ppm
Antimony up to 15.6 ppm
Arsenic 833 ppm
Barium up to 1060 ppm
Cadmium up to 24.6 ppm
Chromium up to 415 ppm
Cobalt 63.4 up to ppm
Copper up to 5588 ppm
Lead up to 26600 ppm
Manganese up to 589 ppm
Nickel up to 234 ppm
Vanadium up to 176.4 ppm
Zinc up to 1110 ppm

Aqueous samples taken from the pond revealed the presence of: from the BI file: CCA000064, CCA000078

Aliphatic hydrocarbons Heavy metals Volatile Organics

Sludge samples that were analyzed showed the following concentrations: from the BI file: CCA000018, CCA000047, CCA000023

Total Petroleum Hydrocarbons up to 170,000 ppm

Chlorobenzene up to 65 ppm Ethylbenzene up to 71 ppm Toluene up to 54 ppm Total xylenes up to 500 ppm Toluene up to 54 ppm

Anthracene up to 53 ppm Bis(2-Ethylhexyl) Phthalate up to 93 ppm Napthalene up to 260 ppm





Fluoranthene up to 95 ppm Phenanthrene up to 250 ppm Pyrene up to 78 ppm

Alpha BHC up to .22 ppm
Delta BHC up to .87 ppm
Heptachlor up to .65 ppm
Dieldrin up to .86 ppm
4,4' –DDE up to 2.1 ppm
4,4' –DDD up to 3.2 ppm
4,4' DDT up to .15 ppm
Alpha chlordane up to .4 ppm
Gamma chlordane up to .52 ppm

Aluminum up to 28,600 ppm
Arsenic up to 629 ppm
Barium up to 1330 ppm
Cadmium up to 14.6 ppm
Chromium up to 534 ppm
Cobalt up to 86.4 ppm
Copper up to 1560 ppm
Lead up to 11,600 ppm
Manganese up to 2090 ppm
Mercury up to 13.2 ppm
Nickel up to 273 ppm
Vanadium up to 259 ppm
Zinc up to 1530 ppm

PERMITS:

NPDES:

NJ0001538 BBC000001, BBF000002

POTW (pretreatment):

No information available at this time.





NEXUS TO NEWARK BAY STUDY AREA:

Direct:

It has been reported that up until the mid 1950s time frame, an on-site separator pond, (Plattykill Pond), had received all surface water wastes and process water from the refinery and other tenants at the facility. from the BI file: CCA000063

Permit files from Army Corps. Of Engineers, (ACE), circa 1972, indicate that five sewer lines discharged to the settling pond. The respective sizes of these sewer lines are: 12", 30", 36", 54" and 68". There are also two 12" pipes located on the property that run through the earthen dam from the pond and discharge to Plattykill Creek. from the BI file: CCA000008, CCA000008A

The on-site separator/settling pond, was approximately one half acre in size, and was utilized by BI and at least six tenants. BI was the holder of the NJPDES Permit, (No. NJ0001341), for the pond, which lies adjacent to the Plattykill Creek. This skimming pond was created by the construction of an earthen dam which was placed across the Plattykill Creek. NJDEP characterized the earthen bulkhead, (dam) as "porous". Its use was discontinued in approximately 1976 - 77. BI proposed measures to NJDEP, in 1977, in order to separate its discharges from those of its tenant companies. BBC000001, from the BI file: CCA00005, CCA000016, CCA000050, CCA000058

WCC made an argument to USEPA, (1976), that its organic wastes which were discharged to the settling pond, were absorbed in the oil in the pond, and were then recovered when the oil in the pond was recovered. Apparently USEPA did not agree with this assessment, and recommended that separate NPDES permits be issued for each of the tenant companies that utilized the pond at the industrial park. As of 1979, it was noted that the tenant companies were in the process of applying for separate NPDES permits, and were waiting for final approval. BBC000001, see also from the BI file: CCA000007, CCA000005

In addition to the White Chemical Co., the following tenant companies were known to have discharged, through their own separate outfalls, to the Plattykill Pond: Rona Pearl, Theobald Industries, (a/k/a "Tank Storage Corp."), Metropolitan Rendering Ass'n, Southern California Chemical Corp., and Kenrich Petro Chemicals. BBC000001, from the BI file: CCA000011, CCA000014, CCA000049, CCA000058

WCC was issued a Final NPDES Permit in 1979 which was identified as No. NJ0001538. This permit allowed for the discharge of non-contact cooling water and scrubber wastes through sewer lines to a separation basin and then to the Plattykill Creek/Canal. BBC000001, BBF000002





Documented discharges:

Samples in a drainage "trough" on site indicated the "qualitative presence of dibromo-, tribromo-, tetrabromo-, pentabromo-, hexabromo-, heptabromo-, octabromo-, nonabromo-, and decabromophenyl compounds" (BBF000002) which coincide with compounds utilized/produced by WCC. from the BI file: CCA000005, CCA000008

Sampling of the surface waters and sediments in Platty Kill conducted in 1977 identified many contaminants used on site by WCC, including polybrominated biphenyls (PBBs), semivolatiles, and metals. BBF000002 The exact location of the sample collection is unknown.

A treatment plant was installed in 1978 which utilized the afore-mentioned oil separator. The separator treats the storm water and waste water from BI before it is discharged to Plattykill Creek. The treatment plant is located within a flood plain. from the BI file: CCA000021, CCA000049, CCA000054A

Sanitary Sewer:

No information available at this time.

Storm Sewer:

The facility yard at BI contained a storm drainage system. Small quantities of oil, mixed with rain, flowed through this system and discharged to the on-site separating (skimming) pond. The oil floating on the surface of the pond was recovered by a skimming device, then pumped to heated storage tanks and was then ultimately re-used for plant fuel. from the BI file: CCA000008

Runoff:

No information available at this time.

Groundwater:

EPA also recommended in 1988 that ground water monitoring wells should be installed and sampled to determine if contaminants have reached ground water and continue to be released to the Kill Van Kull. BBF000002

Sampling Data:

The following substances were identified in sediment cores in the vicinity of the site and within Newark Bay:



2,3,7,8 TCDD - 6.072 ppt



4,4'-DDD -27.8 ppb 4,4'-DDE - 20.3 ppb 4,4'-DDT - 3.5 ppb

Arsenic – 17.2 ppm Lead – 120 ppm Mercury – 1.58 ppm Zinc – 248 ppm

POTENTIAL NEXUS TO NEWARK BAY STUDY AREA:

Direct:

No information available at this time.

Sanitary Sewer:

No information available at this time.

Storm Sewer:

No information available at this time.

Runoff:

WCC has been issued various Notices of Violation by NJDEP, between the late 1970s – early 1980s, for improper storage and handling of waste materials on site. Inspectors documented deteriorating and leaking drums and spills on site and suspect that WCC dumped waste materials directly on the ground. Soil samples in a stained area on site indicated the "qualitative presence of dibromo-, tribromo-, tetrabromo-, pentabromo-, hexabromo-, heptabromo-, octabromo-, nonabromo-, and decabromophenyl compounds" (BBF000002) which coincide with compounds utilized/produced by WCC.

The Hudson Regional Health Commission reported in 1980, that a spill of pivaloyl chloride occurred at the White Chemical Site. The spill was treated with water which triggered a reaction that caused a vapor cloud of pivalic acid to form. The vapor traveled west beyond the perimeter of the BI complex. BBK000002

Groundwater:

Contamination known to exist in site groundwater may potentially impact Newark Bay. Information on groundwater contamination was provided above for review.



REFERENCES:

BATES NO.	DATE	DESCRIPTION
BBC000001	01/00/79	Hudson County Utilities Authority 201 Wastewater Facilities
		Plan. Planning Area II - Bayonne. Excerpts from Volume I-
		Regional Inventory.
BBF000002	Undated	CERCLA Site Investigation Report Volume 1 of 2
BBK000002	06/26/80	HRHC Report of field investigation Re: Spill on site
BBE000010		NJDEP Site Status Reports publication re: White Chemical
BBE000011	10/13/89	Superior Information Database Search Results for White
		Chemical re: Chapter 11 Bankruptcy filing – NJ Bankruptcy
		Court.
		Documents That Were Referenced from the Bayonne
		Industries File:
CCA000004	8/2/77	NJDEP Internal Memorandum from D. Longstreet to File.
CCA000005	8/13/76	Letter from NJDEP to USEPA re: comments on NPDES
		Permit No. 0001341.
CCA000006	8/3/76	Letter from NJDEP to USEPA re: comments on NPDES
		Permit No. 0001341.
CCA000007	6/25/76	Letter from Marshal Bratter to USEPA re: comments for draft
		permit NPDES 76-241.
CCA000008	Circa	Department of the Army Corps of Engineers application for
	1972	permit to discharge or work in navigable waters and their
		tributaries re: Bayonne Industries Inc
CCA000008A	10/16/72	Letter from Bayonne Industries to EPA re: permit application
		and sampling parameters analysis.
CCA000011	6/10/84	NJDEP report of visit for Bayonne Industries
CCA000014	7/10/78	NPDES Compliance Inspection report re: Bayonne Industries
CCA000016	8/9/77	NJDEP letter to RT Schwedfeger of Bayonne Industries
CCA000018	1/31/01	Letter from Bayonne Industries to NJDEP re: Fourth Qtr.
		Status Report.
CCA000021	7/1995	Platty Kill Pond Bioremediation Project 1993/1994 Operating
		Season Report by ENSR Consulting and Engineering
CCA000022	4/1996	Platty Kill Pond Bioremediation Project 1995 Operating
		Season
CCA000023	11/95	ENSR report: Platty Kill Canal Interim Remedial Action
		Report Volume I.
CCA000036	3/14/03	NJDEP letter to Rusty Walker of International Matex Tank
		Terminals
CCA000041	2/14/02	NJDEP memo to Mike Kenney re: Remedial Investigation
		Addendum report Bayonne Industries
CCA000042	5/4/01	NJDEP memo to Mike Kenney re: Review of Revised
		HotSpot Definition and Bayonne Industries
CCA000043	11/14/00	NJDEP memo to Mike Kenney re: Remedial Investigation for
		Sampling Clay-Till
CCA000047	3/5/98	BI Inc. Platty Kill Canal Phase II Sediment Investigation





		Report.
CCA000049	7/1/85	Site Inspection Report and Hazardous Ranking System Model for BI.
CCA000050	5/25/84	EPA Potential Hazardous Waste Site Site information for Bayonne Industries
CCA000054A	12/7/77	Lettter from NJDEP to BI re: approval for construction and operation of a wastewater treatment plant.
CCA000055	5/17/83	NJDEP Internal Memo from Plummer to Klein re: addition of BI to the NJ Hazardous Waste List.
CCA000058	4/12/83	NJDEP Internal Memo from Patel to Coolick re: closure plan for the sludge pond.
CCA000063	11/96	ENSR Report re: Potential Former Surface Impoundments, etc.
CCA000064	10/24/86	Letter from Weston to NJDEP, (Sherman), re: separator pond closure plan.
CCA000077	10/8/82	Bayonne Terminal Warehouse Corp. letter to NJDEP Division of Hazardous Waste Management
CCA000078	12/29/81	NJDEP Internal Memorandum from Santora to Spill File re: Bayonne Industries.



RECOMMENDED FOLLOW-UP

USEPA should issue 104(e) requests seeking information on the operational history of this site; the discharge routes from this site; and for each Candidate PRP identified, bring current its corporate status, including current status of any successor(s), and identify the current agents for service of legal process for each existing such entity.

